

**WATER AND SEWER  
BOND SALES  
IN THE UNITED STATES**

**January-December 1966**

**U.S. DEPARTMENT OF THE INTERIOR  
Federal Water Pollution Control Administration**

**WATER AND SEWER  
BOND SALES IN THE UNITED STATES  
January-December 1966**

**FEDERAL WATER POLLUTION CONTROL ADMINISTRATION  
Division of Pollution Surveillance  
Washington, D.C. 20242**

### **Other Publications in the Series**

Water and Sewer Bond Sales in the United States, 1965  
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## INTRODUCTION

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This annual report of Water and Sewer Bond Sales in the United States contains data which are basic and necessary to the orderly and efficient management of water supply and pollution control programs. It reflects, in a measure, the extent of financing to fulfill these two important public services in a growing nation. The report also provides a ready source of economic reference for financial, investment and banking interests; for the building and contracting trades and professions; and for authorities responsible for providing public water supplies and sewerage systems. The publication series, over the years, is a good indicator of interest rate and construction cost trends in these two types of public utility.

The tables supplement the annual publication of contract award data, to be reported in *Sewage and Water Works Construction 1966*. Similar tables which describe bonds sold between July 1956 and December 1965 are available. The basic information from which these tables were developed was obtained from the Investment Bankers Association by special arrangement. It is believed these tables present information not otherwise readily available.

Data are presented in three categories according to the use of the proceeds from the sale: (1) WATER when the bonds have been sold to finance water facilities; (2) SEWER, to finance sewage facilities; and (3) COMBINATION, to finance jointly water and sewage facilities where the portions attributable to each type are not designated. Data describing bonds sold to finance other types of construction in com-

bination with water and/or sewage facilities construction are excluded. Data describing bonds sold to finance storm sewers are omitted, although these data are available.

It should also be noted that these data describe only those sales reported to the Investment Bankers Association or assembled by that Association from available documents. Locally negotiated sales that may not be reported in bond publications or by State agencies responsible for controlling municipal bond sales are not included. Thus, these tabulations need to be considered as meaning "at least this much." By dollar value of sales, coverage is believed to be nearly complete.

Net interest cost figures shown on pages 8-10 are presented by month, by Moody rating, by dollar size of the bond issue, by population size, and by issuing authority. The figures listed are weighted averages, data being weighted by dollar amount of the issues. Similar tabulations are available for the years 1959 through 1965.

Water and sewer bond sales for 1966 totaled \$1,431 million, only \$14 million above 1965. Bonds for financing water facilities accounted for \$731 million, while those for building sewage treatment facilities and laying collecting sewers amounted to \$515 million. In addition, bonds totaling \$185 million were intended for use in combination projects for both water and sewerage construction. California again had the largest dollar volumes. The District of Columbia, Hawaii, Maine, West Virginia and the Virgin Islands reported no sales.

**BOND SALES**  
**1957-1966**  
(Million dollars)  
BY YEAR

Year	Total		Water		Sewer		Combination	
	Number	Dollars	Number	Dollars	Number	Dollars	Number	Dollars
1957 -----	1,414	1,009	573	483	674	408	167	118
1958 -----	1,492	1,045	610	405	715	526	167	114
1959 -----	1,312	1,073	531	530	608	433	173	110
1960 -----	1,382	1,003	587	499	614	389	181	115
1961 -----	1,442	1,226	563	545	709	570	170	111
1962 -----	1,240	1,119	495	418	606	594	139	107
1963 -----	1,533	1,319	559	613	732	524	242	181
1964 -----	1,474	1,485	607	769	661	551	206	165
1965 -----	1,230	1,417	467	657	562	560	201	200
1966 -----	1,023	1,431	358	731	488	515	177	185

**BOND SALES**  
January-December, 1966  
(Thousand dollars)  
BY MONTH

Month	Total		Water		Sewer		Combination	
	Number	Dollars	Number	Dollars	Number	Dollars	Number	Dollars
January -----	83	106,037	28	21,169	43	78,937	12	5,931
February -----	59	83,200	12	7,574	26	56,441	21	19,185
March -----	89	117,486	36	69,834	38	31,522	15	16,130
April -----	99	87,458	36	29,502	49	47,231	14	10,725
May -----	83	258,350	31	210,498	38	33,651	14	14,201
June -----	95	181,083	31	120,323	46	46,267	18	14,493
July -----	72	53,389	28	32,735	32	18,298	12	2,356
August -----	100	94,140	34	17,381	50	60,577	16	16,182
September -----	90	142,424	31	74,032	44	39,960	15	28,432
October -----	92	41,384	32	13,036	44	20,071	16	8,277
November -----	96	202,822	38	110,219	45	47,368	13	45,235
December -----	65	63,977	21	25,128	33	35,124	11	3,725
Total -----	1,023	1,431,750	358	731,431	488	515,447	177	184,872

**BOND SALES**  
**January–December 1966**  
**(Thousand dollars)**  
**BY ISSUING AUTHORITY**

Issuing authority	Total		Water		Sewer		Combination	
	Number	Dollars	Number	Dollars	Number	Dollars	Number	Dollars
State -----	9	222,740	4	209,200	5	13,540		
County -----	43	50,584	12	9,035	23	30,524	8	11,025
Municipality -----	684	535,374	218	163,321	320	251,973	146	120,080
Township -----	37	30,975	14	1,651	22	29,198	1	126
Special district -----	188	306,520	99	165,964	81	137,206	8	3,350
Statutory authority -----	62	285,557	11	182,260	37	53,006	14	50,291
<b>Total -----</b>	<b>1,023</b>	<b>1,431,750</b>	<b>358</b>	<b>731,481</b>	<b>488</b>	<b>515,447</b>	<b>177</b>	<b>184,872</b>

**BOND SALES**  
**January–December 1966**  
**(Thousand dollars)**  
**BY BOND ISSUE SIZE**

Dollar size of bond issue	Total		Water		Sewer		Combination	
	Number	Dollars	Number	Dollars	Number	Dollars	Number	Dollars
Under 50,000 -----	79	2,293	33	935	38	1,139	8	219
50,000–100,000 -----	105	7,521	47	3,344	47	3,421	11	756
100,000–200,000 -----	198	27,270	68	9,460	97	13,498	33	4,812
200,000–500,000 -----	219	70,462	81	27,017	95	30,981	43	12,464
500,000–1,000,000 -----	151	103,229	48	32,280	71	48,847	32	22,102
1,000,000–2,000,000 -----	135	181,850	37	50,140	66	86,286	32	45,424
2,000,000–5,000,000 -----	91	275,120	24	74,990	54	161,335	13	38,795
5,000,000–10,000,000 -----	24	157,690	8	53,050	13	82,740	3	21,900
Over 10,000,000 -----	21	606,315	12	480,215	7	87,200	2	38,900
<b>Total -----</b>	<b>1,023</b>	<b>1,431,750</b>	<b>358</b>	<b>731,481</b>	<b>488</b>	<b>515,447</b>	<b>177</b>	<b>184,872</b>

**BOND SALES**  
**January–December 1966**  
**(Thousand dollars)**

**BY STATE**

State	Total		Water		Sewer		Combination	
	Number	Dollars	Number	Dollars	Number	Dollars	Number	Dollars
Alabama	6	3,065	2	1,260	2	1,105	2	700
Alaska	1	1,400	1	1,400				
Arizona	6	12,310	2	6,350	3	4,210	1	1,750
Arkansas	2	9,380	1	1,100	1	8,280		
California	83	504,812	54	459,100	28	43,212	1	2,500
Colorado	14	21,528	7	17,495	4	3,393	3	640
Connecticut	11	13,115	1	1,500	9	11,495	1	120
Delaware	7	3,950	1	100	6	3,850		
District of Columbia								
Florida	17	26,920	6	6,415	4	5,410	7	15,095
Georgia	16	19,209	3	5,550	1	2,500	12	11,159
Hawaii								
Idaho	1	130					1	130
Illinois	32	51,972	7	5,509	11	33,548	14	12,915
Indiana	26	35,846	12	15,473	14	20,373		
Iowa	27	9,267	4	1,165	22	7,875	1	227
Kansas	11	1,157	2	251	9	906		
Kentucky	25	13,376	9	7,156	11	2,695	5	3,525
Louisiana	28	7,166	4	1,548	23	5,468	1	150
Maine								
Maryland	15	39,670	3	10,470	11	28,200	1	1,000
Massachusetts	87	43,081	50	22,963	35	18,353	2	1,765
Michigan	95	40,483	31	10,446	48	24,756	16	5,281
Minnesota	38	23,691	11	6,081	23	14,075	4	3,535
Mississippi	9	16,490	4	2,355	4	13,285	1	850
Missouri	24	28,759	8	2,153	10	25,583	6	1,023
Montana	4	1,460	1	165	2	1,035	1	260
Nebraska	8	3,180	1	185	7	2,995		
Nevada	4	7,647	1	147	3	7,500		
New Hampshire	7	4,901	2	705	5	4,196		
New Jersey	47	49,779	17	6,717	25	38,442	5	4,620
New Mexico	4	10,755	2	5,020	2	5,735		
New York	40	47,932	23	27,405	16	18,992	1	1,535
North Carolina	36	19,495	12	8,346	19	10,189	5	960
North Dakota	3	2,466	1	1,200			2	1,266
Ohio	70	54,319	23	13,791	40	38,433	7	2,095
Oklahoma	21	5,754	7	2,362	7	1,386	7	2,006
Oregon	26	9,057	11	7,000	13	1,909	2	148
Pennsylvania	34	35,485	2	3,115	30	31,545	2	825
Puerto Rico	2	18,000					2	18,000
Rhode Island	1	465	1	465				
South Carolina	8	12,470	2	650	4	5,570	2	6,250
South Dakota	3	1,163	2	538	1	625		
Tennessee	16	58,550	3	1,850	5	18,750	8	37,950
Texas	62	97,286	9	55,155	7	3,379	46	38,752
Utah	5	2,375	1	100	3	1,600	1	675
Vermont	5	5,040	1	490	4	4,550		
Virginia	8	9,300	2	1,450	2	3,200	4	4,650
Virgin Islands								
Washington	16	24,455	7	3,685	7	19,455	2	1,315
West Virginia								
Wisconsin	11	23,339	3	4,750	7	17,389	1	1,200
Wyoming	1	300	1	300				
Total	1,023	1,431,750	358	731,431	488	515,447	117	184,872

**BOND SALES**  
**January–December 1966**  
**(Thousand dollars)**  
**BY POPULATION OF ISSUING AUTHORITY**

Population size of issuing authority	Total		Water		Sewer		Combination	
	Number	Dollars	Number	Dollars	Number	Dollars	Number	Dollars
Under 10,000 -----	338	120,649	114	33,979	148	55,842	76	30,828
10,000–25,000 -----	134	110,611	37	28,395	63	48,192	34	34,024
25,000–50,000 -----	107	101,112	34	29,821	59	52,531	14	18,760
50,000–100,000 -----	72	104,929	27	43,156	35	41,491	10	20,282
100,000–250,000 -----	45	70,541	18	15,688	22	44,948	5	9,905
250,000–500,000 -----	35	88,622	10	28,427	22	30,695	3	29,500
500,000–1,000,000 -----	16	74,759	5	29,780	8	33,152	3	11,827
Over 1,000,000 -----	15	269,660	7	230,940	8	38,720		
Unidentified -----	261	490,867	106	291,245	123	169,876	32	29,746
<b>Total -----</b>	<b>1,023</b>	<b>1,431,750</b>	<b>358</b>	<b>731,431</b>	<b>488</b>	<b>515,447</b>	<b>177</b>	<b>184,872</b>

**BOND SALES**  
**January–December 1966**  
**(Thousand dollars)**  
**BY TYPE OF ISSUE**

Type of issue	Total		Water		Sewer		Combination	
	Number	Dollars	Number	Dollars	Number	Dollars	Number	Dollars
<i>General obligation bonds</i>								
Unlimited Tax -----	568	776,026	215	429,310	304	310,844	49	35,872
Unlimited Tax Secured By:								
Utility Revenue -----	11	15,102	3	1,600	6	12,882	2	620
Special Assessment -----	66	24,835	18	2,629	40	20,851	8	1,355
Limited Tax -----	53	51,061	17	13,419	28	33,562	8	4,080
Limited Tax Secured By:								
Special Assessments -----	7	607	1	147	5	345	1	115
<i>Revenue bonds</i>								
Utility Revenue -----	303	543,419	99	276,926	98	125,013	106	141,480
Special Tax Revenue (Florida) -----	3	2,250			3	2,250		
Rental Revenue -----	11	18,100	5	7,400	3	9,850	3	1,350
Utility Revenue Secured By:								
Special Tax Revenue -----	1	350			1	350		
<b>Total -----</b>	<b>1,023</b>	<b>1,431,750</b>	<b>358</b>	<b>731,431</b>	<b>488</b>	<b>515,447</b>	<b>177</b>	<b>184,872</b>

## GENERAL OBLIGATION BOND SALES

January-December 1966

(Thousand dollars)

## BY NET INTEREST COST RANGES

Net interest cost range midpoint	Total		Water		Sewer		Combination	
	Number	Dollars	Number	Dollars	Number	Dollars	Number	Dollars
3.000 -----								
3.250 -----	5	1,155	3	915	2	240		
3.500 -----	64	119,168	23	33,896	36	81,807	5	3,465
3.750 -----	71	117,894	26	59,992	39	51,870	6	6,032
4.000 -----	164	361,128	57	266,364	91	76,419	16	18,345
4.250 -----	106	72,679	46	31,964	56	38,908	4	1,807
4.500 -----	94	80,345	29	20,876	56	55,587	9	3,882
4.750 -----	45	25,767	14	2,779	25	22,014	6	974
5.000 -----	38	14,856	10	3,103	24	10,762	4	991
5.250 -----	13	7,538	3	1,310	7	3,388	3	2,840
5.500 -----	8	2,880	5	871	3	2,009		
5.750 -----	1	3,800	1	3,800				
6.000 -----	4	14,260	2	10,460	2	3,800		
6.250 -----	1	250	1	250				
6.500 -----	1	3,800	1	3,800				
6.750 -----								
7.000 -----	1	450	1	450				
N.I.C. unknown -----	89	41,661	32	6,275	42	31,680	15	3,706
Total -----	705	867,631	254	447,105	383	378,484	68	42,042

**REVENUE BOND SALES**  
**January–December 1966**  
**(Thousand dollars)**  
**BY NET INTEREST COST RANGES**

Net interest cost range midpoint	Total		Water		Sewer		Combination	
	Number	Dollars	Number	Dollars	Number	Dollars	Number	Dollars
3.000								
3.250	3	1,350	1	200	1	1,000	1	150
3.500	3	5,895	1	1,895	1	3,000	1	1,000
3.750	20	43,765	5	12,300	10	13,590	5	17,875
4.000	49	247,459	14	175,335	18	32,295	17	39,829
4.250	38	45,763	12	19,210	18	13,570	13	12,983
4.500	56	81,583	16	12,357	25	37,380	15	31,846
4.750	25	11,687	9	3,835	7	2,383	9	5,469
5.000	37	66,399	11	38,215	10	11,228	16	16,956
5.250	6	7,910	2	2,395	3	3,900	1	1,615
5.500	9	19,510	3	4,150	2	12,500	4	2,860
5.750	5	6,670	4	4,920			1	1,750
6.000								
6.250								
6.500								
6.750								
7.000								
N.I.C. unknown	67	26,128	26	9,514	15	6,117	26	10,497
Total	318	564,119	104	284,326	105	136,963	109	142,830

**BOND SALES**  
**NET INTEREST COST**  
**January-December 1966**  
**(Percent)**  
**BY MONTH**

Month	Total		Water		Sewer	
	General obligation	Revenue	General obligation	Revenue	General obligation	Revenue
January	3.65	3.93	4.11	3.83	3.57	3.95
February	3.95	4.03	3.85	3.97	3.97	4.07
March	3.89	4.44	3.81	4.48	4.13	4.39
April	3.67	4.22	3.66	4.55	3.66	4.14
May	3.98	4.06	3.98	4.08	3.99	3.96
June	3.97	4.59	3.95	4.04	3.99	4.78
July	4.02	4.23	4.01	4.26	4.00	4.08
August	4.62	4.94	4.29	4.61	4.67	4.68
September	4.38	4.73	4.34	4.87	4.45	4.51
October	4.26	4.80	4.43	4.88	4.21	4.50
November	4.12	4.47	4.13	4.67	4.11	5.29
December	5.22	4.64	5.96	5.15	4.35	4.43

**BOND SALES**  
**NET INTEREST COST**  
**January-December 1966**  
**(Percent)**  
**BY MOODY RATING**

Moody rating	Total		Water		Sewer	
	General obligation	Revenue	General obligation	Revenue	General obligation	Revenue
AAA	3.59	4.98	3.52	4.54	3.68	-----
AA	3.88	3.93	3.95	4.00	3.69	4.03
A	4.04	4.10	4.01	4.09	4.06	4.06
BAA	4.27	4.67	4.23	4.87	4.31	4.06
BA	4.99	4.35	5.46	4.61	4.68	-----
Unknown	4.63	4.74	4.82	4.94	4.42	4.63

**BOND SALES**  
**NET INTEREST COST**  
**January–December 1966**  
**(Percent)**  
**BY DOLLAR SIZE OF ISSUE**

Dollar size of bond issue	Total		Water		Sewer	
	General obligation	Revenue	General obligation	Revenue	General obligation	Revenue
Under 50,000 -----	4.42	4.53	4.31	4.24	4.50	4.50
50,000–100,000 -----	4.22	4.58	4.10	4.57	4.29	4.50
100,000–200,000 -----	4.30	4.50	4.39	4.70	4.22	4.43
200,000–500,000 -----	4.23	4.52	4.25	4.42	4.22	4.47
500,000–1,000,000 -----	4.17	4.46	4.15	4.76	4.19	4.29
1,000,000–2,000,000 -----	4.20	4.45	4.21	4.53	4.21	4.31
2,000,000–5,000,000 -----	4.15	4.33	4.31	4.36	4.08	4.23
5,000,000–10,000,000 -----	4.02	4.21	3.91	4.19	4.09	4.31
Over 10,000,000 -----	3.98	4.27	4.04	4.21	3.65	5.01

**BOND SALES**  
**NET INTEREST COST**  
**January–December 1966**  
**(Percent)**  
**BY POPULATION OF ISSUING AUTHORITY**

Population size of issuing authority	Total		Water		Sewer	
	General obligation	Revenue	General obligation	Revenue	General obligation	Revenue
Under 10,000 -----	4.33	4.65	4.21	4.61	4.40	4.59
10,000–25,000 -----	4.12	4.47	4.12	4.30	4.11	4.25
25,000–50,000 -----	4.09	4.30	4.01	4.30	4.12	4.28
50,000–100,000 -----	4.04	4.36	4.03	4.55	4.07	4.16
100,000–250,000 -----	3.98	3.95	3.67	3.85	4.12	3.96
250,000–500,000 -----	3.82	4.05	3.83	4.02	3.81	4.17
500,000–1,000,000 -----	3.91	3.86	3.88	4.12	3.92	-----
Over 1,000,000 -----	3.97	-----	4.00	-----	3.80	-----
Unidentified -----	4.33	4.35	4.51	4.25	4.13	4.53

**BOND SALES**  
**NET INTEREST COSTS**  
**January-December 1966**  
**(Percent)**  
**BY ISSUING AUTHORITY**

Issuing authority	Total		Water		Sewer	
	General obligation	Revenue	General obligation	Revenue	General obligation	Revenue
State -----	4.02	-----	4.01	-----	4.12	-----
County -----	3.74	5.13	4.27	5.64	3.67	4.71
Municipality -----	4.05	4.28	3.95	4.27	4.08	4.28
Township -----	4.28	4.23	4.47	4.00	4.26	4.25
Special district -----	4.24	4.94	4.38	4.98	4.07	4.72
Statutory authority -----	3.67	4.20	3.58	4.07	4.86	4.56

